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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/627,272 | 07/25/2003 | Simo M. Tam | 42P15905 | 7598 |

7590 10/04/2005

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EXAMINER

ELAMIN, ABDELMONIEM I

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2116

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,272

Applicant(s)

TAM ET AL.

Examiner

A Elamin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee, US.

Pat. No. 6,828,848.

3. Claims 1, 22, Lee teaches a computer system, comprising:

a processor having a power supply with a voltage [*Functional blocks IP0-IPn*];

a first circuit, coupled to the processor, that monitors the power supply voltage [*comparator 201 of Fig. 2*]; and

a second circuit [*element 140 of Figs. 1 and 2*], coupled to the first circuit, that increases a clock period of a clock [*i.e., decreases the clock speed*] coupled to the processor over a predetermined number of clock cycles if the first circuit detects that the power supply voltage is less than a reference voltage [*reference voltage Vref, see also col. 5, lines 37-49*].

4. Claims 2, 23, Lee teaches the second circuit decreases the clock period [*i.e., increases the clock speed*] for a plurality of clock cycles after the increase in the clock period [*see col. 5, lines 49-60*].

5. Claims 3, Lee teaches a phase locked loop (PLL), coupled to the second circuit, that generates the clock, wherein the clock is distributed to the processor [*PLL 222 of Fig 3*].

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6. **Claims 6-7, 9-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Cline et al, Pub No. US 2002/0087896A1.**

7. Claims 6, 14-19, Cline teaches a circuit, comprising: a trigger control that adjusts the rise and fall time settings of a clock [*field 13 of register 11 of Fig. 1*];

a first register coupled to the trigger control, wherein the first register contains a default rise and fall settings of the clock, wherein the trigger control uses the rise and fall settings to adjust the clock [*field 12 of register 12 of Fig. 1 when set to 0000, see para 0013, lines 14-16*]; and

m registers coupled to the first register, wherein m is an integer greater than or equal to one, wherein each of the m registers has rise and fall settings that increase a period of the clock, wherein the trigger control accesses the m registers if a power supply voltage is detected to be less than a reference voltage [*the last two entries of table 15 of Fig. 2*].

8. Claims 7, Cline teaches n registers coupled to the m registers, wherein n is an integer great than two, wherein the n registers have rise and fall settings that allow the clock to recover the period increases from the m registers [*the first two entries of table 15 of Fig. 1*].

9. Claims 9-10, Cline teaches the m registers and the n registers are preset via fuses [*see Figs. 1 and 3*].

10. Claims 11-13, Cline teaches the m registers and the n registers are revised via a TAP controller [*abstract, para 0014-0015*].

11. Claims 20, Cline teaches adjusting the rise and fall edge delays of the clock comprises stretching the clock period [*col. 5, lines 37-49*].

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12. Claim 21, Cline teaches adjusting the rise and fall edge delays of the clock comprises recovering delays added to the clock during stretching of the clock period [*col. 5, lines 49-60*].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee, US. Pat. No. 6,828,848.

15. Claims 4-5, Lee fails to teach the computer system is a desktop computer/server.

However, Examiner asserts that these types of limitations are considered field of use, and are not patentably distinct. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Lee in a desktop computer/server, because it optimizes the operating performance by continuously adjusting the clock period based on the voltage drop [see Lee, col. 6, lines 57-67].

16. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cline et al, Pub No. US 2002/0087896A1.**

17. Claims 8 Cline fails to teach the total decrease in clock period caused by the rise and fall settings of the n registers is less than a frequency guard band.

Official Notice is taken that both the concept and the advantages of using frequency guard band is old and well known in the art.

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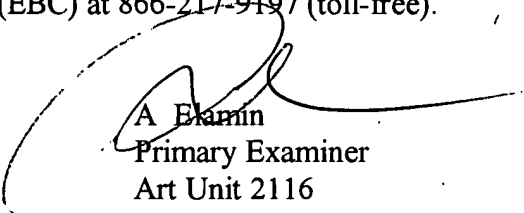
It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Cline to include the total decrease in clock period caused by the rise and fall settings of the n registers is less than a frequency guard band, because it provides a remedy for coping with existing frequency interference generated by one system into a second system's allocated frequency spectrum.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A Elamin whose telephone number is (571) 272-3674. The examiner can normally be reached on MON-FRI 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


A Elamin
Primary Examiner
Art Unit 2116

October 1, 2005